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1119 Apoptosis induced by extracellular ATP in the mouse neuroblastoma cell line N1E-115: studies on involvement of P2 receptors and adenosine
S. Mariëtte Schrier, Bogdan I. Florea, Gerard J. Mulder, J. Fred Nagelkerke and Ad P. IJzerman

1127 Inhibition of rat lipoprotein oxidation after tetradecylthioacetic acid feeding
Ziad A. Muna, Oddrun A. Gudbrandsen, Hege Wergedahl, Pavol Bohov, Jon Skorve and Rolf K. Berge

1137 Lack of involvement of extracellular signal-regulated kinase (ERK) in the agonist-induced endothelial nitric oxide synthesis
Kurt Schmidt, Hanan D. Gibraeil and Bernd Mayer

1143 Characterization of anthracenediones and their photoaffinity analogs
Kai-Ming Chou, A. Paul Krapcho, David Horn and Miles Hacker

CHEMOTHERAPY AND METABOLIC INHIBITORS

1149 Overexpression of sorcin, a calcium-binding protein, induces a low level of paclitaxel resistance in human ovarian and breast cancer cells
Hemant K. Parekh, Hong Bing Deng, Khuram Choudhary, Steven R. Houser and Henry Simpkins

NEUROSCIENCE

1159 The distribution of copper, zinc- and manganese-superoxide dismutase, and glutathione peroxidase messenger ribonucleic acid in rat basal ganglia
Grazyna Kunikowska and Peter Jenner

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1165 Structure–activity relationships for inhibition of human 5α-reductases by polyphenols
Richard A. Hiipakka, Han-Zhong Zhang, Wei Dai, Qing Dai and Shutsung Liao

1177 The effects of natural ligands of hormone receptors and their antagonists on telomerase activity in the androgen sensitive prostatic cancer cell line LNCaP
Jan Bouchal, Zdeněk Kolář, Jana Mad'arová, Alice Hlobilková and Erwin von Angerer

INFLAMMATION AND IMMUNOPHARMACOLOGY

1183 Inhibition of inducible prostaglandin E_2 synthase by 15-deoxy-$\Delta^{12,14}$-prostaglandin J_2 and polyunsaturated fatty acids
Omar Quraishi, Joseph A. Mancini and Denis Riendeau

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1191 Chemokines as novel therapeutic targets in inflammatory diseases
Maureen N. Ajuebor, Mark G. Swain and Mauro Perretti

MOLECULAR AND CELLULAR PHARMACOLOGY

1197 Selective inhibition of STAT3 phosphorylation by sodium salicylate in cardiac fibroblasts
Zhongyan Wang, Bingbing Jiang and Peter Brecher

1209 *In vitro* pharmacokinetics and pharmacodynamics of 1,3-bis(2-chloroethyl)-1-nitrosourea (BCNU)
Hiroko Ueda-Kawamitsu, Terence A. Lawson and Peter R. Gwilt

1219 Biochemical changes associated with a multidrug-resistant phenotype of a human glioma cell line with temozolomide-acquired resistance
Jianguo Ma, Maureen Murphy, Peter J. O'Dwyer, Eric Berman, Karin Reed and James M. Gallo

1229 Chronic ethanol administration decreases the ligand binding properties and the cellular content of the mannose 6-phosphate/insulin-like growth factor II receptor in rat hepatocytes
James Haorah, Daniel L. McVicker, James C. Byrd, Richard G. MacDonald and Terrence M. Donohue Jr.

1241 Sensitization of human neutrophil defense activities through activation of platelet-activating factor receptors by ginkgolide B, a bioactive component of the *Ginkgo biloba* extract EGB 761
Monique Lenoir, Eric Pedruzzi, Samira Rais, Katy Drieu and Axel Perianin

1251 Induction of G_2/M arrest and inhibition of *c-myc* and *p53* transcription by WP631 in Jurkat T lymphocytes
Silvia Villamarín, Neus Ferrer-Miralles, Sylvia Mansilla, Waldemar Priebe and José Portugal

1259 Obligatory role of membrane events in the regulatory effect of metformin on the respiratory chain function
Dominique Detaille, Bruno Guigas, Xavier Leverve, Nicolas Wiernsperger and Pierre Devos

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Frederik L.P. Fierens, Patrick M.L. Vanderheyden, Chantal Roggeman, Pascal Vande Gucht, Jean-Paul De Backer and Georges Vauquelin

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Miriam Cnop, Jean Claude Hannaert and Daniel G. Pipeleers

1287 Effect of protein-bound uraemic toxins on the thermodynamic characteristics of human albumin
Veronika V. Sarnatskaya, W. Edward Lindup, Toshimitsu Niwa, Andrey I. Ivanov, Larisa A. Yushko, John Tjia, Vitaly N. Maslenny, Ludmila N. Korneeva and Vladimir G. Nikolaev

1297 Dose-dependent cysteine-mediated protection of insulin-producing cells from damage by hydrogen peroxide
Suvi Rasilainen, Jenni M. Nieminen, Anna-Liisa Levonen, Timo Otonkoski and Risto Lapatto

1305 Modulation of apoptosis and improved redox metabolism with the use of a new antioxidant formula
Luciana Mosca, Sonia Marcellini, Marzia Perluigi, Paola Mastroiacovo, Sonia Moretti, Giuseppe Famularo, Ilaria Peluso, Gino Santini and Claudio De Simone

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Eibai Lee, Riyo Enomoto, Kazu Takemura, Yuko Tsuda and Yoshio Okada

CHEMOTHERAPY AND METABOLIC INHIBITORS

1325 Protection by ascorbic acid from denaturation and release of cytochrome *c*, alteration of mitochondrial membrane potential and activation of multiple caspases induced by H_2O_2, in human leukemia cells
Tal Gruss-Fischer and Ina Fabian

1337 Stem cell toxicity of oxazaphosphorine metabolites in comparison to their antileukemic activity
Svenja K. Brueggemann, Peter Schlenke, Stephanie Klich, Michael Deeken, Stefan O. Peters and Thomas Wagner

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1343 Modulation of dendritic release of dopamine by metabotropic glutamate receptors in rat substantia nigra
Jorge M. Campusano, Jorge Abarca, María Inés Forray, Katia Gysling and Gonzalo Bustos

GENE EXPRESSION AND DEVELOPMENT

1353 Developmental regulation of flavin-containing monooxygenase form 1 in the liver and kidney of fetal and neonatal rabbits
Shelley A. Larsen-Su, Sharon K. Krueger, Mei-Fei Yueh, Clifford B. Pereira and David E. Williams

CARDIOVASCULAR AND PULMONARY PHARMACOLOGY

1361 Modulation of the β-adrenergic receptor system of vascular smooth muscle cells *in vitro* and *in vivo* by chronically elevated endothelin-1 levels

Bernhard R. Brehm, Sabine C. Wolf, Jens Freudenberg, Folkert Friedmann, Helmut Heinle and Klaus Schulze-Osthoff

GASTROINTESTINAL AND RENAL PHARMACOLOGY

1371 Inhibition of gluconeogenesis by vanadium and metformin in kidney-cortex tubules isolated from control and diabetic rabbits

Anna Kiersztan, Aleksandra Modzelewska, Robert Jarzyna, Elżbieta Jagielska and Jadwiga Bryła

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Surachai Supattapone, Koren Nishina and Judy R. Rees

MOLECULAR AND CELLULAR PHARMACOLOGY

1389 Apoptosis of a human non-small cell lung cancer (NSCLC) cell line, PLA-801, induced by acutiaporberine, a novel bisalkaloid derived from *Thalictrum acutifolium* (Hand.-Mazz.) Boivin

Qi Chen, Wenlie Peng and Anlong Xu

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Yanbin Ji, Violeta Toader and Brian M. Bennett

1405 Serum withdrawal leads to reduced aryl hydrocarbon receptor expression and loss of cytochrome P4501A inducibility in PLHC-1 cells

Eli V. Hestermann, John J. Stegeman and Mark E. Hahn

1415 The alkaloid sanguinarine is effective against multidrug resistance in human cervical cells *via* bimodal cell death

Zhihu Ding, Shou-Ching Tang, Priya Weerasinghe, Xiaolong Yang, Alan Pater and Andrejs Liepins

1423 Increase of the resistance of human cervical carcinoma cells to cisplatin by inhibition of the MEK to ERK signaling pathway partly *via* enhancement of anticancer drug-induced NFκB activation

Pei Yen Yeh, Shuang-En Chuang, Kun-Huei Yeh, Ying Chyi Song, Chee-Kwee Ea and Ann-Lii Cheng

1431 Interaction of mammalian O^6-alkylguanine-DNA alkyltransferases with O^6-benzylguanine

Natalia A. Loktionova and Anthony E. Pegg

1443 Induction of apoptosis in HL-60 leukemia and B16 melanoma cells by the acronycine derivative S23906-1

Jérôme Kluza, Amélie Lansiaux, Nicole Wattez, Marie-Paule Hildebrand, Stéphane Léonce, Alain Pierré, John A. Hickman and Christian Bailly

1453 Physiological factors affecting the expression of FMO1 and FMO3 in the rat liver and kidney

Virginie Lattard, Joel Lachuer, Thierry Buronfosse, François Garnier and Etienne Benoit

1465 ESR analysis of spin adducts of alkoxyl and lipid-derived radicals with the spin trap Trazon

Klaus Stolze, Natascha Udilova and Hans Nohl

1471 Preferential efflux by P-glycoprotein, but not MRP1, of compounds containing a free electron donor amine

Milena Salerno, Teresa Przewloka, Izabela Fokt, Waldemar Priebe and Arlette Garnier-Suillerot

1481 Ritonavir inhibition of calcium-activated neutral proteases

Wenshuai Wan and Paolo B. DePetrillo

1485 Resistance of HepG2 cells against the adverse effects of ethanol related to neutral lipid and phospholipid metabolism

José M. Jiménez-López, María P. Carrasco, Josefa L. Segovia and Carmen Marco

CHEMOTHERAPY AND METABOLIC INHIBITORS

1491 Modulation of pyridyl cyanoguanidine (CHS 828) induced cytotoxicity by 3-aminobenzamide in U-937 GTB cells

Henrik Lövborg, Petra Martinsson, Joachim Gullbo, Sara Ekelund, Peter Nygren and Rolf Larsson

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1499 Mitochondrial toxin inhibition of [^{3}H]dopamine uptake into rat striatal synaptosomes

William F. Maragos, Jun Zhu, M. Dathan Chesnut and Linda P. Dwoskin

1507 Neuronal cell death induced by antidepressants: lack of correlation with Egr-1, NF-κB and extracellular signal-regulated protein kinase activation

Pia Bartholomä, Nina Erlandsson, Katrin Kaufmann, Oliver G. Rössler, Bernd Baumann, Thomas Wirth, Klaus M. Giehl and Gerald Thiel

HORMONES AND GROWTH FACTORS

1517 Characterization of selective estrogen receptor modulator (SERM) activity in two triarylethylene oxybutyric acids

Valeria N. Rubin, Peter C. Ruenitz, Jason L. Boyd, F. Douglas Boudinot and Thomas E. Wiese

INFLAMMATION AND IMMUNOPHARMACOLOGY

1527 Comparison of inhibition of ovalbumin-induced bronchoconstriction in guinea pigs and *in vitro* inhibition of tumor necrosis factor-α formation with phosphodiesterase 4 (PDE4) selective inhibitors

Eric S. Muise, Ian C. Chute, David Claveau, Paul Masson, Louise Boulet, Lydia Tkalec, Douglas J. Pon, Yves Girard, Richard Frenette and Joseph A. Mancini

CARDIOVASCULAR AND PULMONARY PHARMACOLOGY

1537 Pharmacological differences among $CysLT_1$ receptor antagonists with respect to LTC_4 and LTD_4 in human lung parenchyma

Saula Ravasi, Valérie Capra, Tiziana Panigalli, G. Enrico Rovati and Simonetta Nicosia

1547 Effects of Ca^{2+} channel blockers on amiloride-sensitive Na^+ permeable channels and Na^+ transport in fetal rat alveolar type II epithelium

Yoshinori Marunaka and Naomi Niisato

GASTROINTESTINAL AND RENAL PHARMACOLOGY

1553 Dapsone-induced cholestasis and impairment of bile salt output in the rat

Luis M. Veggi, Fernando A. Crocenzi, Marcelo G. Roma, Paul A. Dawson, José M. Pellegrino, Enrique J. Sánchez Pozzi and Aldo D. Mottino

1565 Uptake of ^{3}H-1-methyl-4-phenylpyridinium (^{3}H-MPP^+) by human intestinal Caco-2 cells is regulated by phosphorylation/dephosphorylation mechanisms

Fátima Martel, Elisa Keating, Conceição Calhau and Isabel Azevedo

1575 Verapamil decreases glucuronidase activity in the gut

Jörn Lötsch, Bernhard Sperker, Heyo K. Kroemer and Gerd Geisslinger

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1579 Leptin, gut, and food intake

Anoja S. Attele, Zhi Q. Shi and Chun-Su Yuan

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1585 Homologous recombinational repair vis-à-vis chlorambucil resistance in chronic lymphocytic leukemia

Vanessa E. Bello, Raquel S. Aloyz, Garyfallia Christodoulopoulos and Lawrence C. Panasci

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1589 Purification and characterization of a phospholipase A_2 isoenzyme isolated from *Lachesis muta* snake venom

André L. Fuly, Ana Luisa P. de Miranda, Russolina B. Zingali and Jorge A. Guimarães

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Christophe Morisseau, Marvin H. Goodrow, John W. Newman, Craig E. Wheelock, Deanna L. Dowdy and Bruce D. Hammock

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Muriel Vayssade, Laetitia Faridoni-Laurens, Jean Bénard and Jean-Charles Ahomadegbe

1619 A GAL4-based yeast three-hybrid system for the identification of small molecule–target protein interactions

Debbie C. Henthorn, Albert A. Jaxa-Chamiec and Eric Meldrum

1629 Modifying rates of reductive elimination of leaving groups from indolequinone prodrugs: a key factor in controlling hypoxia-selective drug release

Steven A. Everett, Elizabeth Swann, Matthew A. Naylor, Michael R.L. Stratford, Kantilal B. Patel, Natasha Tian, Robert G. Newman, Borivoj Vojnovic, Christopher J. Moody and Peter Wardman

1641 Down-modulation of Bcl-X_L, release of cytochrome *c* and sequential activation of caspases during honokiol-induced apoptosis in human squamous lung cancer CH27 cells

Shu-Er Yang, Ming-Tsuen Hsieh, Tung-Hu Tsai and Shih-Lan Hsu

1653 Intercalation of imidazoacridinones to DNA and its relevance to cytotoxic and antitumor activity

Jarosław Dzięgielewski, Bartłomiej Ślusarski, Antoni Konitz, Andrzej Składanowski and Jerzy Konopa

1663 The influence of charge clustering on the anti-HIV-1 activity and *in vivo* distribution of negatively charged albumins

Leonie Beljaars, René Floris, Ben Berkhout, Catharina Smit, Dirk K.F. Meijer and Grietje Molema

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Herbert Torfs, Michel Detheux, Hendrica B. Oonk, Karl E. Åkerman, Jeroen Poels, Tom Van Loy, Arnold De Loof, Gilbert Vassart, Marc Parmentier and Jozef Vanden Broeck

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Karl Walter Bock, Barbara S. Bock-Hennig, Peter A. Münzel, Jens O. Brandenburg, Christoph T. Köhle, Matthew G. Soars, Rob J. Riley, Brian Burchell, Oliver von Richter, Michel F. Eichelbaum, Stellan Swedmark and Achim Orzechowski

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Georgette Plemper van Balen, Pierre-Alain Carrupt, Didier Morin, Jean-Paul Tillement, Alain Le Ridant and Bernard Testa

CHEMOTHERAPY AND METABOLIC INHIBITORS

1699 Reversal of cisplatin resistance in human ovarian cancer cell lines by a c-*jun* antisense oligodeoxynucleotide (ISIS 10582): evidence for the role of transcription factor overexpression in determining resistant phenotype

Bin Pan, Kang-Shen Yao, Brett P. Monia, Nicholas M. Dean, Robert A. McKay, Thomas C. Hamilton and Peter J. O'Dwyer

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Shuang-En Chuang, Pei-Yen Yeh, Yen-Shen Lu, Gi-Ming Lai, Chao-Ming Liao, Ming Gao and Ann-Lii Cheng

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Iraida G. Sharina, Rongbao Zhao, Yanhua Wang, Solomon Babani and I. David Goldman

1725 Antioxidant properties of Thonningianin A, isolated from the African medicinal herb, *Thonningia sanguinea*

Maxwell Afari Gyamfi and Yoko Aniya

GENE EXPRESSION AND DEVELOPMENT

1739 Glutamate–cysteine ligase modifier subunit: mouse *Gclm* gene structure and regulation by agents that cause oxidative stress

Willy A. Solis, Timothy P. Dalton, Matthew Z. Dieter, Sarah Freshwater, Judy M. Harrer, Lei He, Howard G. Shertzer and Daniel W. Nebert

CARDIOVASCULAR AND PULMONARY PHARMACOLOGY

1755 HOE 402 lowers serum cholesterol levels by reducing VLDL-lipid production, and not by induction of the LDL receptor, and reduces atherosclerosis in wild-type and LDL receptor-deficient mice

Richard Draijer, Oscar L. Volger, Vivian E.H. Dahlmans, Elly C.M. de Wit, Louis M. Havekes and Hans M.G. Princen

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O. Pauvert, D. Salvail, E. Rousseau, C. Lugnier, R. Marthan and J.P. Savineau

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Elaine Willmore, Fiona Errington, Michael J. Tilby and Caroline A. Austin

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Peter A.C. 't Hoen, Martijn Rooseboom, Martin K. Bijsterbosch, Theo J.C. van Berkel, Nico P.E. Vermeulen and Jan N.M. Commandeur

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Hiroki Sato, Noriko Takahashi, Mayumi Nakamoto, Masahiro Ohgami, Masahiro Yamazaki and Tetsuya Fukui

CHEMOTHERAPY AND METABOLIC INHIBITORS

1857 Degradation of glyceraldehyde-3-phosphate dehydrogenase induced by acetylleucine chloromethyl ketone in U937 cells

Mitsune Yamaguchi, Yukihiro Tsuchiya, Toshiyuki Chikuma and Hiroshi Hojo

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Linda Björkhem-Bergman, Kerstin Jönsson, Lennart C. Eriksson, Jerker M. Olsson, Sören Lehmann, Christer Paul and Mikael Björnstedt

INFLAMMATION AND IMMUNOPHARMACOLOGY

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CARDIOVASCULAR AND PULMONARY PHARMACOLOGY

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Corrigendum

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Ingo Rustenbeck

Rapid Communication

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MOLECULAR AND CELLULAR PHARMACOLOGY

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Javier García-Villafranca and José Castro

CHEMOTHERAPY AND METABOLIC INHIBITORS

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Vanaja Paul

GENE EXPRESSION AND DEVELOPMENT

2025 Comparative expression of two alpha class glutathione S-transferases in human adult and prenatal liver tissues

Evan P. Gallagher and James L. Gardner

2037 Sexual dimorphic expression of mouse hepatic CYP2B: alterations during development or after hypophysectomy

Kanokwan Jarukamjorn, Tsutomu Sakuma and Nobuo Nemoto

INFLAMMATION AND IMMUNO PHARMACOLOGY

2043 Effects of dexamethasone and protein kinase C inhibitors on the induction of bradykinin B_1 mRNA and the bradykinin B_1 receptor-mediated contractile response in isolated rat ileum

Akinori Ueno, Eriha Dekura, Yae Kosugi, Mineka Yoshimura, Hiroaki Naraba, Fumiaki Kojima and Sachiko Oh-ishi

CARDIOVASCULAR AND PULMONARY PHARMACOLOGY

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Timothy P. Geisbuhler, Tammie L. Schwager and Heather D. Ervin

2063 The direct stimulation of Gi proteins by neuropeptide Y (NPY) in the rat left ventricle

Laura Raimondi, Grazia Banchelli, Rosanna Matucci, Francesca Stillitano and Renato Pirisino

GASTROINTESTINAL AND RENAL PHARMACOLOGY

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Toshiaki Miura, Sanae Muraoka and Yukio Fujimoto

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Kosaku Uyeda, Hiromi Yamashita and Takumi Kawaguchi

MOLECULAR AND CELLULAR PHARMACOLOGY

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Anjaneyulu Kowluru

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Andreea Ticu Boeck, Lawrence M. Schopfer and Oksana Lockridge

2111 Reduced (±)-3,4-methylenedioxymethamphetamine ("Ecstasy") metabolism with cytochrome P450 2D6 inhibitors and pharmacogenetic variants *in vitro*

Yamini Ramamoorthy, Ai-ming Yu, Nina Suh, Robert L. Haining, Rachel F. Tyndale and Edward M. Sellers

2121 A critical role for a tyrosine residue in the cannabinoid receptors for ligand recognition

Sean D. McAllister, Qing Tao, Judy Barnett-Norris, Kurt Buehner, Dow P. Hurst, Frank Guarnieri, Patricia H. Reggio, Katharine W. Nowell Harmon, Guy A. Cabral and Mary E. Abood

2137 Coordinate regulation of UDP-glucuronosyltransferase UGT1A6 induction by 3-methylcholanthrene and multidrug resistance protein MRP2 expression by dexamethasone in primary rat hepatocytes

Katalin Jemnitz, Zsuzsa Veres and László Vereczkey

2145 (−)-Epicatechin effects in rat liver epithelial cells: stimulation of gap junctional communication and counteraction of its loss due to the tumor promoter 12-O-tetradecanoylphorbol-13-acetate

Niloofar Ale-Agha, Wilhelm Stahl and Helmut Sies

2151 Dopamine D_2 receptor-induced COX-2-mediated production of prostaglandin E_2 in D_2-transfected Chinese hamster ovary cells without simultaneous administration of a Ca^{2+}-mobilizing agent

Monika Hellstrand, Elias Eriksson and Christer L. Nilsson

2159 Differences in caffeine and paraxanthine metabolism between human and murine CYP1A2

Andreas Labedzki, Jeroen Buters, Wafaâ Jabrane and Uwe Fuhr

2169 Elevated uptake of low density lipoprotein by drug resistant human leukemic cell lines

Loukas Tatidis, Michèle Masquelier and Sigurd Vitols

2181 Structure-activity relationship of neurokinin A(4–10) at the human tachykinin NK_2 receptor: the effect of amino acid substitutions on receptor affinity and function

Fiona J. Warner, Robert C. Miller and Elizabeth Burcher

CHEMOTHERAPY AND METABOLIC INHIBITORS

2187 Sequence and chemistry requirements for a novel aptameric oligonucleotide inhibitor of EGF receptor tyrosine kinase activity

Saghir Akhtar, Debbie Dunnion, David Poyner, John Ackroyd, Mike Bibby and John Double

NEUROSCIENCE

2197 Pharmacologically distinct binding sites in rat brain for [^{3}H]thyrotropin-releasing hormone (TRH) and [^{3}H][3-methyl-histidine^2]TRH

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